

# PATENT OFFICE

## APPLICATION FOR PATENT

PATENT

253557

SEP 8 - 1925

NO 296277 ✓

FILED

Sept 27/25 4/21

### FEES RECEIVED

FILING FEE.....\$16.00  
 RECEIPT NO.....  
 SEC. 41 FEE.....  
 FINAL FEE.....  
 REC'D.....

ASST. FEE  
 (1) \$2.00  
 (2) .....  
 (3) .....  
 (4) .....

### ASSIGNMENTS RECORDED

122646

### APPLICANT

W. D. White, inventor of  
 a new and improved  
 method of making  
 paper

### ATTORNEY

James (Dooty) Kearney, Jr.  
 150 Congress St.  
 Boston, Mass.

### COST OF COPIES

PATENT.....\$..... PETITION.....\$.....  
 SPECIFICATION..... OATH.....  
 DRAWING..... CORRES., ETC.....

### CARDBOARD DRAWINGS

### INVENTION

Method of making paper  
 for hand paper  
 10873

### ACTION

Acknowledged by Circular 1, and receipt mailed Nov 3rd 1924. Cash 12.2646 Oct 2  
 for Nov 6/24. New get up each called for by 27 Nov 2/24 - 1st of Nov 24 Des  
 6/9/25 (subscribed 4/24/25) 20.00 July 14/16/25. See serial  
 July 24/25.

READY FOR ISSUE

JUL 7 1925.

NOTICE OF ALLOWANCE

PATENT MAILED.

SEP 8 - 1925

BEST AVAILABLE COPY

This invention relates to a novel and improved runner for land vehicles and will be best understood by reference to the following description when taken in connection with the accompanying drawings of one specific embodiment thereof while its scope will be more particularly pointed out in the appended claims.

In the drawings:-

Fig. 1 is a side elevation of a runner embodying the invention;

Fig. 2 is a plan of the same as viewed from its under side;

Fig. 3 is a vertical longitudinal section of a portion of the runner shoe on line 3-3 of Fig. 2; and

Fig. 4 is a cross-sectional view of the runner shoe on line 4-4 Fig. 3.

BEST AVAILABLE COPY

Referring to the drawings and to the embodiment of the invention which is selected for exemplification, there is shown a runner designated generally by the numeral 5 (See Fig. 1), comprising a pivotal bracket 6 pivoted on a spindle 7, and secured, as by bolts or lag screws 8, to the body 9, which may be made of wood.

To the underside of the body is secured a shoe, comprising a sheet metal plate 10, which presents a broad lengthwise surface by the addition of a rib or keel 11. This keel gives positive steering action, while the relatively broader surface of the shoe prevents the runner from sinking unduly into soft snow. The relatively broad surface is made convex, as shown in Fig. 4. This form takes care of conditions wherein the vehicle does not stand level transversely, but wherein the vehicle travels over irregularities which work it up and down from side to side, and which might otherwise render the keel less effective.

By reference to Fig. 1, it will be observed that the shoe has upturned terminal portions 12, and an intermediate straight portion 13, and that the keel extends along the straight portion only. This arrangement results in a much better steering action than has been possible in prior constructions. However, this arrangement necessitates a very strong mode of attachment of the keel to the plate, inasmuch as in passing over obstructions such as railroad tracks, there is considerable tendency to break the keel away from the plate.

This is obviated in the present construction by making the keel upturned at both ends as at 14, and at the forward end (See the left-hand portion of Fig. 3), the upwardly directed portion of the keel extends through an opening 15

provided in the plate , and the end of the runner extends somewhat beyond the corresponding end of the opening, and is shouldered, as at 16, to close the opening at the point, and to present a smooth surface along the underside. There is thus afforded an interlocking relationship between the keel and the plate, which effectually prevents any tendency of one to separate from the other. Rearwardly beyond this interlocking connection, the keel, in the present example, is secured to the plate as by a series of rivets 17, which extend through both. The plate in turn is secured to the body 9, as by carriage bolts 19.

Having thus described one embodiment of the invention, but without limiting myself thereto what I claim and desire by Letters Patent to secure is:

253557

CLAIMS.

1. In a runner for land vehicles, the combination of a shoe having upwardly directed terminal portions and an intermediate straight portion and a keel having upwardly directed terminal portions intermediate the first-mentioned terminal portions.

2. In a runner for land vehicles, the combination of a shoe having up-turned terminal portions and an intermediate straight portion and a keel extending along said straight portion only.

3. In a runner for land vehicles, the combination of a shoe comprising a plate, and a keel extending along and secured to the under side of said plate and having a terminal portion extending through said plate to the upper side thereof.

4. In a runner for land vehicles, the combination of a shoe comprising a plate having an oblong opening extending lengthwise of said shoe, and a keel extending lengthwise of and beneath said plate and having an upwardly inclined terminal portion extending into said opening.

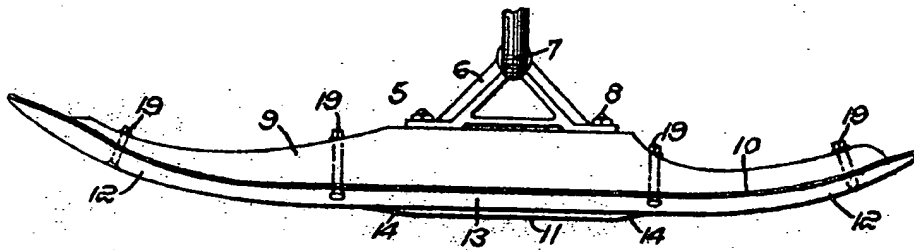
5. In a runner for land vehicles, the combination of a shoe comprising a plate having an oblong opening extending lengthwise of said shoe, and a keel extending lengthwise of and beneath said plate and having an upwardly inclined terminal portion extending into and through said opening and thence along the upper side of said plate beyond the adjacent end of said opening.

6. In a runner for land vehicles, the combination of a shoe comprising a plate having an oblong opening extending lengthwise of said shoe, and a keel extending lengthwise of and beneath said plate and having an upwardly inclined terminal portion extending into and through said opening and thence along the upper side of said plate beyond the adjacent end of said opening, that portion of said keel which extends beyond said opening being reduced in its vertical dimension.

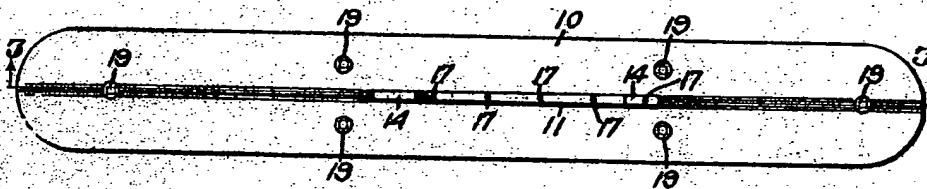
7. In a runner for land vehicles, the combination of a shoe comprising a plate having an oblong opening extending lengthwise of said shoe, and a keel extending lengthwise of and beneath said plate and having an upwardly inclined terminal portion extending into said opening, said inclined terminal portion having its lower surface merging into the lower surface of said plate.

8. In a runner for land vehicles, the combination of a shoe comprising a plate having an oblong opening extending lengthwise of said shoe, and a keel extending lengthwise of and beneath said plate and having an upwardly inclined terminal portion extending into said opening, said keel leaving a vertical dimension greater than the vertical dimension of said plate, and said keel having a reduced vertical dimension beyond said opening and overlying said plate.

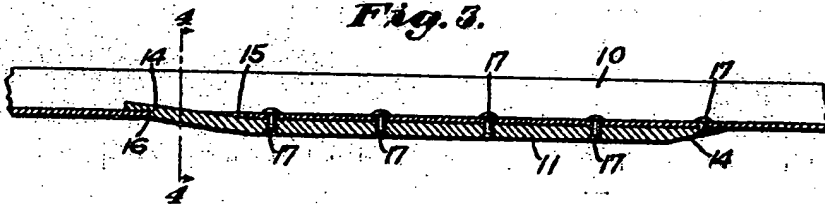
**Fig. 1.**



**Fig. 2.**



**Fig. 3.**



**Fig. 4.**



Certified to be the drawing referred to  
in the specification herewith annexed.

Boston, Mass., U.S.A., Oct 24, 1924.

**Inventor:**  
**Virgil D. White,**  
by *Emory, Scott, Fanning & Tracy*  
**Attys.**